

U.S. Patent Application Serial No. 10/588,796

Response filed June 23, 2009

Reply to OA dated February 24, 2009

**AMENDMENTS TO THE CLAIMS:**

Please amend claims 4 and 5, and add new claims 6 and 7, as follows. This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

Claims 1-3 (Canceled).

Claim 4 (Currently amended): An optical waveguide comprising a lower cladding layer (I), a core (II) and an upper cladding layer (III), wherein at least one of (I), (II) and (III) is formed using a photocurable resin composition comprising:

\_\_\_\_\_ (A) a carboxy-containing unsaturated acrylic resin [(A)] obtained by reacting a carboxy-containing acrylic resin (a) with an epoxy-containing unsaturated compound (b), the carboxy-containing acrylic resin (a) being obtained by copolymerizing at least one  $\alpha,\beta$ -ethylenically unsaturated acid selected from the group consisting of acrylic acid and methacrylic acid with styrene and at least one unsaturated monomer selected from (meth)acrylates, (meth)acrylonitrile, and (meth)acrylamide;

\_\_\_\_\_ (B) a solvent [(B)]; and

\_\_\_\_\_ (C) a ~~biphenol-type~~ bisphenol-type epoxy resin or a novolac-type epoxy resin, ~~and which does not contain any organic acid salt of melamine.~~

Claim 5 (Currently amended): An optical waveguide comprising a lower cladding layer (I), a core (II) and an upper cladding layer (III), wherein at least one of (I), (II) and (III) is formed using a photocurable dry film that is formed using a photocurable resin composition comprising:

\_\_\_\_ (A) a carboxy-containing unsaturated acrylic resin ~~[[A]]~~ obtained by reacting a carboxy-containing acrylic resin (a) with an epoxy-containing unsaturated compound (b), the carboxy-containing acrylic resin (a) being obtained by copolymerizing at least one  $\alpha,\beta$ -ethylenically unsaturated acid selected from the group consisting of acrylic acid and methacrylic acid with styrene and at least one unsaturated monomer selected from (meth)acrylates, (meth)acrylonitrile, and (meth)acrylamide;

\_\_\_\_ (B) a solvent ~~[[B]]~~; and

\_\_\_\_ (C) a ~~biphenol-type~~ bisphenol-type epoxy resin or a novolac-type epoxy resin, ~~and which does not contain any organic acid salt of melamine.~~

Claim 6 (New): An optical wave guide according to claim 4, wherein (C) a bisphenol-type epoxy resin or a novolac-type epoxy resin is a bisphenol A diglycidyl ether.

Claim 7 (New): An optical wave guide according to claim 5, wherein (C) a bisphenol-type epoxy resin or a novolac-type epoxy resin is a bisphenol A diglycidyl ether.